

SOIL CONSERVATION DISTRICTS IN OHIO¹

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For many years I have heard the statement, "The Rainbow Comes Down in Ohio." Formerly, that statement, with all it implies, gave me a sort of warm glow of pride and satisfaction. More recently, however, has come the realization that rain, usually associated with the rainbow, results in erosion. On our ability to control erosion hinges our opportunity to continue to repeat this old saying with all its implications.

I feel it a real privilege to discuss with you a job that we are all coming to realize is so vital to the welfare of every citizen in Ohio regardless of his vocation. The hour is already late. The damage already done by erosion can be realized only partially. Translated into dollars and cents, the totals would stagger us, even accustomed as we are today to figures dealing in millions and billions of dollars. Furthermore, the losses continue to mount at an ever-increasing, accelerated rate. The solution, I firmly believe, will come through an enlightened, informed public. All the more reason, then, why I feel it is so appropriate, so timely to be discussing this with you educators here today.

I understand that others have discussed certain phases of this subject with you in past sessions. At the risk of repeating part of what may have been said, I would like to present very briefly and quickly the picture as we see it today.

Of the 26,318,000 acres in Ohio, approximately 22,000,000 acres are in farms; and about 10,000,000 of these acres are cropland—that is, subject to the plow. I do not need to tell this group that every type of topography is represented in this area, from the old lake plains in the northwest to the "Switzerland of Ohio" in Monroe County. We have approximately 190 types of soils—glaciated and residual, limestone soils and soils derived from sandstone and shale; heavy soils and light soils. Type of farming varies from intensive, as illustrated by vegetable growing, to the grazing and forest farming. Even the rainfall, while fairly uniform over the state, does vary in amount, time, and intensity. I mention all of these things because every one of them has a direct effect upon this problem of soil erosion and its control, which is the primary problem of soil conservation districts.

Most of us realize that Ohio is a relatively young state agriculturally. Five years ago, Marietta celebrated its 150th birthday. Most of the state has been farmed only about 100 years. However, few of us appreciate the toll that erosion has taken in that time. Actually, we do not have the exact picture because a complete, detailed survey has never been made of the whole state. Soils men have surveyed several scattered counties completely and a few years ago made a reconnaissance survey of the whole state. This type of survey is naturally subject to considerable error, but later surveys and information lead us to believe that our estimates are too conservative—that the problem is much worse than we first thought. Even so, these figures were bad enough because they show that one-sixth of the state, or approximately 4,500,000 acres, has lost 75 percent or more of the topsoil, while about one-third of the state, or approximately 8,000,000 acres, has lost from one-fourth to three-fourths of the topsoil. Therefore, over one-half of the total area of the state has a serious erosion problem. We are now convinced that most of the remainder of the state has lost considerably more soil than the survey indicated. Even the old lake plains in northwest Ohio, where most of us would think there was little erosion, are being affected, as is evidenced by the

¹Paper presented at the annual meeting of the Geography Section of the Ohio Academy of Science, April 30, 1943, Columbus, Ohio.

silted streams and clogged drainage ditches—most of the latter being less than 50 years old.

All of this has a very positive and direct bearing on this soil conservation district movement. Most of us may have been blissfully ignorant of what was going on before our very eyes and literally under our own feet. We saw fields going out of cultivation. Gullies scarred our fair hillsides. We did not appreciate then that gullies represent the last stages of erosion rather than the beginning. What were once fertile farms, producing good crops, fat cattle, and fine citizens, have slipped down the scale in all respects. We saw, but we saw "as through a glass darkly."

Certainly we did not realize the full import of what was going on. These individual fields and farms began to take shape into patterns. They grew into communities, into counties, into areas. There are more of these eroded areas, and they are larger in size, than we like to admit. Some of you live in these areas. You know the situation and conditions. On the average, these areas have poorer buildings, poorer schools, poorer roads, poorer churches, and, yes, I'm afraid we'll have to admit—poorer citizens, in many cases.

Now please do not misunderstand me. I am not referring to any particular section of the state, but to those badly affected areas in all quarters of Ohio. And these conditions affect more than just the farmer making his living from the land. They have an immediate and direct effect upon the entire community—the banker, the dentist, the school teacher, the manufacturer, the auto mechanic, the motion picture man, the druggist, the insurance salesman. No single individual escapes.

Neither does the remainder of the state escape. Other sections must contribute part of their tax money for school aid in these areas. A disproportionate share of the gas tax helps maintain the roads. Old age pensions and unemployed relief take their toll also. Thus, the problem of the individual or the area becomes the problem of every citizen of Ohio regardless of who he is, where he lives, or what he does. Do not forget, too, this problem of erosion has a direct relationship to floods, to the ever-lowering water tables so important to industry and to the daily water supply of many of our cities.

As stated before, all that I have said has a direct bearing on the phenomenal growth and spread of the soil conservation district movement. I believe you will agree with me when I say it is phenomenal, when I tell you that in slightly over five years, there have been organized 841 soil conservation districts in the United States, including 490,000,000 acres of land in 42 of the 48 states.

Such a development did not "just happen." There must have been many people concerned about the problem. All they needed was direction and leadership. Probably no one has done more to focus the attention, unify the thinking, and develop the action and leadership than Dr. H. H. Bennett, Chief of the Soil Conservation Service. As a soils man he traversed this country from north to south and from ocean to ocean, always looking, always digging and boring into the ground, always thinking, talking and preaching about what was taking place. For years he was "a voice crying in the wilderness."

Finally he was heard. He was given his chance. Erosion experiment stations were set up in a number of different areas over the country. One is located at Zanesville. They told us in measured tones what was happening. They all told essentially the same story—and that story was startling indeed. Every thinking farmer and agricultural worker realized something had to be done. But what?—how?

The first answer was the demonstration project. Selected, representative areas were chosen where methods were tried out and techniques developed under actual farm conditions. They were successful to a degree but too slow in reaching the mass of farmers. Too often they were looked upon by the farmers as a "Government" project of little concern to them or their neighbors. Definitely they

were not the farmers' or the community's project. And all the while, the agricultural bank account in America—the soil—was dwindling at an alarming and an ever-accelerating rate.

What to do next was the problem. Obviously, the Government could not itself control erosion on the millions of farms in the United States. Some way, somehow, the man who is responsible for causing the erosion must be made conscious of the damage he is doing; if necessary, must be made to feel a responsibility and desire to do something about it, and finally must be shown what to do and how to do it and, in some cases, actually assisted in getting it done. That man is the individual farmer.

The soil conservation district idea seems to be the best answer to the erosion problem developed to date. At least it has caught the fancy of millions of farmers to the extent that they have incorporated themselves into legally-organized, locally-controlled units, with the main purpose of individually and cooperatively solving their own problems.

The State Legislature opens the way by passing the necessary enabling legislation. By petition, and through referendum, the district is created by the farmers themselves. By petition and election they nominate and select from their own group, the men to govern and guide the district's affairs. They, the farmers in the district, study and analyze their problems, develop their programs, make their plans, and apply the practices. The soil conservation district is really and truly agricultural democracy in action.

Now what is the soil conservation district situation in Ohio? In this movement Ohio must bow its head a bit because it was the 41st state to pass the enabling act. It was passed by the last Legislature in 1941, and became a law in September of that year. The Act provides for a State Soil Conservation Committee to assist districts with their organization and in many other ways. The committee is made up of the Dean of the College of Agriculture of the Ohio State University, the State Director of Agriculture, and three farmers appointed by the Governor. It began to function about February 1, 1942, and in April, 1942, the first referendum in Ohio was held in Highland County. To date eleven districts have been voted in, each covering an entire county and totaling 2,907,900 acres. They are located in the following counties: Highland, Butler, Clark, Morrow, Columbiana, Coshocton, Guernsey, Monroe, Noble, Tuscarawas, and Meigs. Logan County farmers held their hearing last week (April 22) and petitions are being circulated in Fairfield County now. Several other counties are in various stages of educational activities leading to district formation.

Now let no one be misled. The fact that these districts have been organized does not mean that their erosion or soil management problems are solved or will be in the next year or two. The ills of a century cannot be cured so quickly. In fact, erosion probably will never be stopped completely. It can be slowed up, however, to the point where good soil-building practices can keep pace with the erosion losses. There doubtless are farmers living within the districts who don't even realize that a district has been organized in their county or community. Some are even opposed to and voted against them. It is *your* job and my job, and the job of a host of other people, each working in his own way, to reach these people and help do this job that is so important, so vital to each of us.

Now perhaps you would like to know in a little more detail just how these districts function and what they are doing or planning to do. Please remember that in Ohio, the oldest district is less than a year old. Even so, some tangible plans have been developed and action is under way this spring.

To get a clearer picture of the actual operations of soil conservation districts, let us examine the programs and work plans of two of the older districts in Ohio and see just what the farmers themselves say are their problems and what they propose doing about them.

First, I'd like to quote what the supervisors of the Columbiana Soil Conservation District say is the purpose of their organization.

"The Columbiana Soil Conservation District was organized for a cooperative attack upon the problems of soil and water conservation, and to improve the farming practices whereby a satisfactory farm income can be received to maintain a desirable standard of living.

"The district intends to accomplish these results through cooperative efforts of local and county-wide farm and civic organizations, state and federal agencies, county and local government, neighborhood groups, and individual farm plans and demonstrations coordinated by the district supervisors."

After then giving a general description of their area, they point to one of their basic needs as follows:

"Wide variations in soil conditions exist throughout the district and on individual farms. A detailed soil map indicating soil types, grade of slope, extent of erosion, and possible land use, is essential in order to plan a sound soil building and soil and water conservation program."

They believe that adjustments in land use are fundamental to a sound agriculture as indicated in the following section.

"There is need for adjustment in the use of land so that each acre is put to its most suitable use.

"There is need for a plan for better use of large areas of land in the district.

"1. An area consisting of 67,634 acres or 21% of the county was designated non-agricultural land by the local land use planning committee. About one-half of this area is idle, one-fourth is cropland, and one-fourth is now in timber. Of this area, 30% was tax delinquent, 20% was operated by part-time farmers, and 31% of the families were on relief, in 1939.

"2. Coal strip mining operations are rapidly taking many acres of farm land. Many of these farms can no longer adequately support families from the farm income. Community and social problems result from reduced land valuation and reduced tax income. The effect of strip mining operations on the ground water table, and the most practical use to be made of the spoil banks need consideration."

I'd like to quote further from their program.

"EROSION:

"Over half of the land recommended by the Land Use Planning Committee for agricultural use in the county has a serious erosion problem. The remainder has a moderate erosion problem. Thousands of acres in the county have already been abandoned for farming because of erosion and thousands of acres are rapidly approaching abandonment. There is a need to develop and put into operation on most of the agricultural land of the county a program of land use and approved erosion control and water conservation practices.

"WATER:

"Because of the great amount of water required for crop production, farm water supply, and industrial purposes in this area, the constant lowering of the ground water table and the heavy run-off and frequent occurrence of floods, there is a growing need to increase the water intake of agricultural and non-agricultural lands of the county. Hence, water conservation practices need to be adopted on all lands in the district.

"FARM WOODLOT MANAGEMENT AND REFORESTATION:

"The county land use study indicated that 13% of the recommended agricultural area is now in farm woodlots of which 70% is now being pastured. It further indicated that 65% of the farm buildings are over 50 years old. A farm woodlot is needed on each farm to make the needed repair and replacement of farm buildings. . . . There is need for reforestation of many acres of idle and unproductive pasture and crop land.

"WILDLIFE:

"There is a need for protection of wildlife, and to improve ground cover and increase food for wildlife."

These extracts give you a good picture of what the supervisors and farmers in the district think are some of their most important problems demanding their attention. There are many more which we will not take the time to read. Let us see what they are doing to improve the situation.

Realizing the need of more information among the farmers in the district as being fundamental to the carrying out of their plans, their first proposal is as follows:

“EDUCATION:

“The district supervisors will foster an educational program designed to carry out the purposes and the programs of the district. The program will include meetings, newspaper publicity, demonstrations, tours, addresses, discussions, and other devices for informing farmers and the general public as to the problems outlined herein, and the solutions of those problems. . . .”

To obtain the necessary soils information, the supervisors have requested that:

“The Ohio Agricultural Experiment Station and the Soil Conservation Service, cooperating, make a soil survey of the entire district to be completed at the earliest practical date, and to make the soil maps and information available for immediate use in initiating and developing sound soil building and soil and water conservation practices. The supervisors will suggest the order of areas to be surveyed on the basis of interest and development within the district; and will use the maps to present land conditions, problems, and recommended programs to groups of farmers and to individual farmers.”

To help with the technical planning:

“The district supervisors will request that the Soil Conservation Service furnish trained men to develop plans for soil and water conservation and to assist farmers in adopting these plans. They further request the services of the specialists of the Ohio Agricultural Extension Service in developing various phases of the district program and in carrying on educational work within the district.”

The job of deciding what is needed on each farm, how to do it, and then fitting these plans into the farm operations, is the most difficult part of the whole program. With a soil survey map as the basis, the supervisors request and coordinate the assistance of just as many farmers, specialists, and agencies as possible, such as the Soil Conservation Service, the Extension Service, FSA supervisors, farm organizations, vocational agricultural teachers, AAA committeemen, county commissioners, township trustees, and others.

Most districts request the Soil Conservation Service to furnish assistance in helping develop conservation plans for farms and showing methods of application. The farmer himself applies the plan to his own land for the most part. Occasionally, when his problems tie in directly as part of a neighborhood problem, such as a large drainage ditch, his neighbors, the township trustees, highway department, and perhaps others, may all pool their efforts under the general guidance of the supervisors. I'd like to quote what they say about farm planning.

“It is intended that the principal part of the farm planning for erosion control and water conservation will be done by the group approach. An attempt will be made to get farmers with similar problems and conditions together and to develop with them plans for their farms.

“A farm plan will consist of as nearly a complete farm program for soil and water conservation as is possible. It will include adjustments to secure the best use of each acre, soil building practices, liming, rotations and cropping practices, conservation practices such as contour cultivation, contour strip, cropping, sod waterways and water diversions, drainage systems, water supply systems, pasture management and improvement, woodlot management and reforestation, and a suggested balance between livestock and crops. It may also include farm power and labor adjustments and other factors of farm management which will increase farm income and improve family living.”

We will not take the time to go into as much detail with the Clark County District. Somewhat the same general idea is indicated in their program, although expressed in a different manner and dealing, of course, with what they consider are their problems. They, like the Columbiana folks, feel the need of basic soil information and have requested a similar soil survey. I might add that both of these surveys are well along toward completion, the information being indicated on aerial photographs with individual pictures of his farm furnished to each cooperating farmer.

The Clark County District supervisors list three major objectives:

"(1) To conserve and build the soil. (2) To study and improve the water table. (3) To promote soil-saving agriculture that will maintain or better the farmers' standard of living."

They list eleven major problems; including erosion control, drainage, water supply, rotations, pasture improvement, reforestation and woodlot management, and farm tenancy.

These supervisors apparently believe in taking their own medicine because in the calendar they set up for farm planning they listed their own farms first. These, by the way, were planned last fall and are being put into operation this spring. They then listed the AAA Community Committeemen, followed by FSA clients. After these are planned, other planning groups will be arranged according to interest and requests as fast as they can be worked out.

In studying their district, they recognized four major areas: (1) Level to undulating, (2) undulating to gently rolling, (3) gently rolling to rolling, and (4) rolling to steep. With this classification as a basis, they then decided upon practice recommendations for the cropland, pastureland, and woodland. For example, on cropland in areas 3 and 4, which include their rolling lands, the recommend strip cropping on all slopes over 100 feet long. They think all natural drainageways should be kept in sod. For their woodlands they are recommending trees for all steep and eroded areas, protection from fire and livestock, improvement cuttings, and sound management.

I hope this partial review of the programs and work of these two districts may give you a clearer picture of what soil conservation districts are for and how they operate. You might say they are soil and water conservation cooperatives. Their goal is to secure the maximum production for each acre, indefinitely.

There is nothing particularly new or mysterious about soil conservation. It is just good common sense applied to the management of land. By nature, every acre is best adapted to a certain use. Our job is, first, to get each acre classified into its proper use; and, second, to get applied to each acre the necessary management practices.

Over 5,000 farmers in Ohio are already farming the "Conservation" way. They were cooperators with the old demonstration projects and CCC camps. They are trying these practices on their own farms and are finding them practical. What is particularly important right now is that they are finding that the application of some of these practices increases their crop production by 5, 10, or 25 percent, or more. Thus, contrary to the experiences of the last war, they can increase food production, which is so badly needed, and still have their farms in a good productive condition after the war is over.

Even with approximately one-ninth of the state already organized in soil conservation districts, the job is barely begun. To do all we believe must be done, every farm in these districts and in other districts to come, must apply those practices necessary to insure a permanent, prosperous agriculture. It's a big job—a tremendously important job. We need your help—*whoever* you are, or *wherever* you are. To get the job done will require "The everlastin' teamwork of every bloomin' soul." Then we can say again, with pride and assurance, "The Rainbow Comes Down in Ohio."